

Mercury cannot be useful in trying any degrees of heat above what makes it boil : and it appears by Dr. Hinfell's account of the experiments lately made at Peterfbourg, that it may be frozen by extreme cold ; which makes it unfit for afcertaining the extreme degrees of either.

An instrument of this kind might be made by the help of a tin caving, to come between the bars and the wood, to receive a bar of iron or fteel, heated to any degree within that of its melting ; without any detriment to it. And any kind of metal bar will certainly bear the moft extreme degree of cold, and probably contract proportionably. I fhould imagine it might alfo be made very useful in trying minutely the expansion of different kinds of metals, fit for making compound pendulums ; and the exactnefs of the pendulum, when made, might likewise be tried, by artificial freezing, or in hard froft, and by boiling it in water.

LXXI. *An Account of a Bird fupposed to be bred between a Turkey and Pheasant ; by Mr. George Edwards, F. R. S.*

To the Rev. Dr. Birch, Secretary to the Royal Society.

S I R, •

Read May 22, 1760. **H**AVING in my hands a bird, that, I believe, may be a curious and entertaining fubject to the Royal Society, I prefume, by your favour, to lay it before them [*Vide Tab. XIX.*], with its defcription, and what other account of it I could

could procure. I received it from the very curious and worthy Henry Seymer, Esq; of Handford, near Blandford, Dorsetshire, with his letter, dated April 9, 1760: wherein he says,—“ I have taken the first safe opportunity of sending the two birds. The large one [the subject lying before the Society], I verily believe, is an accidental cross, as we sportsmen term it, between a pheasant and turkey. You are to be told, that, when the bird was just killed, the skin round the eyes was of a pale red-lead colour, and the eyes like a turkey’s. As I live near the wood where they were found, I took great pains to get another of them, but was never so lucky as to find one. There were three at first, all of which, I believe, are now destroyed. You are heartily welcome to it; but I beg the favour of a painting of it by your own hand; this I should esteem in the highest degree. I am sensible it requires a nice hand to copy the feathers of the back and tail; but your judgment and experience have long rendered things, extremely difficult to others, easy to you.”

In the same letter, Mr. Seymer informs me, that the bird was shot in October last, and he supposes it to be the production of the spring or summer immediately preceding, it having not, as he thinks, molted off all its first or chicken feathers, as they are called; and that it would have required a somewhat different description, had it been older. My description of it, in its present state, is as follows.

It is of a middle size between a pheasant and a turkey-hen, and shaped pretty much like a turkey; the bill, legs, and feet, are black, and shaped like a
turkey’s;

turkey's; it hath a broad space of bare skin round the eyes, which, when the bird was living, was of a pale red-lead colour; the eyes like those of a turkey; the head, and half the neck, is covered with very short feathers, of a whitish clay colour, with transverse dusky bars, though the throat and fore-part of the neck are wholly of a light clay colour. These short feathers occupy the head and that part of the neck, which is naturally void of feathers in turkeys. On the lower part of the neck, the breast, and belly, the feathers are much longer, and of a black colour, with a purple and changeable gloss. The thighs and legs, on their fore-part, a little below the knees, are covered with feathers transversely barred with clay colour and black. The back, covert feathers of the wings and tail, are of a mixed colour, in very fine transverse lines of brown and black, though some of the coverts of the wings and tail have larger transverse bars of the abovesaid colours; the greater quills are dusky, or black, powdered with small clay-coloured spots; the inner coverts of the wings have white tips, which hide their bottoms, that are dusky. I counted sixteen feathers in the tail, the outer ones shorter by two inches than the middlemost; their colour is composed of brown and black, mixed transversely, like those on the back, though they are more dusky toward their tips; the very tips being of a bright brown: the outer borders of the side feathers of the tail are of a bay colour; the covert feathers beneath the tail are of an orange colour, crossed with black; about the vent, the feathers are white, with dusky spots. The whole upper side nearly resembles that of a hen-pheasant, but darker coloured. The feathers of the body

are all double ; that is, two distinct feathers proceeding from one stem ; the outer large, and of a firm texture ; the inner smaller, and altogether downy.

Whether this bird be produced from a turkey-hen and a cock-pheasant, or from a turkey-cock and hen-pheasant, no one knows. I should think it rather from a hen-turkey and cock-pheasant ; because their disparity in size is not near so great, as between the turkey-cock and hen-pheasant, Though the supposition, that this bird is from an egg laid by a hen-turkey trodden by a cock-pheasant, is attended with a difficulty not easily reconciled ; for it is not probable, that a hen-turkey, a domestic fowl, should betake herself to the woods, and bring up her brood wild, and unobserved ; which is contrary to the habit of turkeys in our country, where they are not originally natives. Why these mixed generations so rarely happen, is, I believe, because nature has fixed the inclination of every distinct species to the contrary sex of its own identical species, from which, in a wild and natural state, it will hardly ever stray. The reason of the mixtures, that we meet with, contrary to the ordinary course of generation, may proceed from some hinderance of the male's meeting with his proper female, or female with male, at the seasons, when they are by nature appointed to propagate their species, which rarely happens ; for, in a wild state of nature, most animals are numerous, and, at their breeding seasons, easily meet with males or females of their own species. Disappointments of what they naturally seek, and accidental meetings of different species, near of kin to each other, cause these unnatural conjunctions, which produce uncommon

mixed species of animals. I believe, that two species widely different from each other, as water-fowl and land-birds, &c. cannot possibly conjoin, so as to produce a living mixed offspring. I have been informed, and believe it may be true, that a mixed species has been produced between our common poultry, and partridges that harbour near farm-yards.

I am, S I R,

Your most humble

and obedient servant,

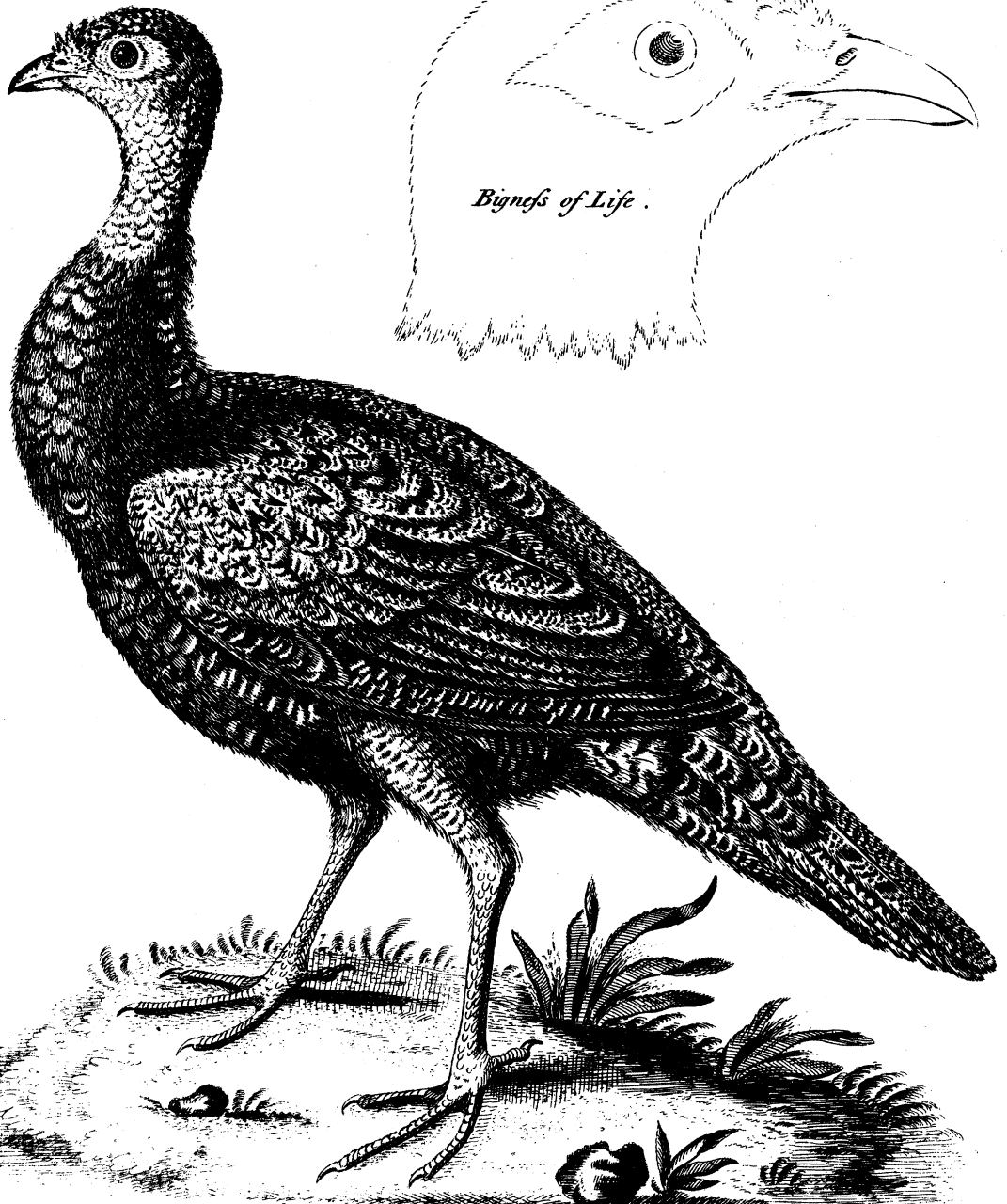
London, May 22, 1760.

Geo. Edwards.

LXXII. *An Account of a late Discovery of Asbestos in France: In a Letter to the Rev. Tho. Birch, D. D. Secretary to the Royal Society, from Mr. Turberville Needham, F. R. S.*

Reverend Sir,

Read June 5, 1760. **I** Have little to add in the way of literature, except a singular discovery accidentally made, lately, in one of the French provinces, of the nature of the asbestos, or amianthus. The proprietor of a certain forge, upon taking down his furnaces to repair them, found a great quantity of this substance at the bottom. It answered effectually all the common uses of the native amianthus, either



A Bird supposed to be bred between a Turkey and a Pheasant.